

United States Public Health Service

MACHINATORES VITAE

Engineer Community Newsletter

From the Chief Engineer Officer





Edward M. Dieser, P.E. Rear Admiral, US Public Health Service Assistant Surgeon General

Fall 2020

A Reflection on 2020: Interview with RADM Dieser, Chief Engineer, USPHS

By: LT Michelle Roy

It was with great pleasure that I interviewed RADM Dieser in October 2020 to hear category updates and his reflection on this year. His responses to my questions have been summarized below.

Q: 2020 has been an unprecedented year with a global pandemic and record-breaking wildfires and hurricanes. Can you give a brief update on what USPHS engineers have done and continue to do to help with the national emergencies?

A: The largest effort has been undertaken by the Indian Health Service (IHS) under RADM Mark Calkins and CAPT David Harvey with the Navajo Water Mission. According to IHS data, 20% of the Navajo Nation population does not have access to piped water, which is a significant concern during COVID-19. This makes handwashing and the ability to sequester impossible. The COVID pandemic hit the Native community, especially the Navajo Nation, hard. The Navajo Nation had one of the highest infection rates in

(Continued on page 2)

INSIDE THIS ISSUE:

2020 EPAC Chair Update	5
<u>How Engineers Can Gain</u> Improved Access to Engineering Standards at Work	7
<u>EPAC Hosts 1st Virtual</u> Engineer Category Day	8
<u>USPHS Engineers Lead the</u> <u>Development of a Graphical</u> <u>Information System at the</u> <u>Indian Health Service</u>	8
<u>USPHS Engineer Experiences</u> <u>with Collaborative Problem-</u> <u>Solving and Community</u> Engagement in Addressing Water <u>Quality Challenges</u>	10
<u>Looking into the Future, in</u> <u>what Direction is the</u> <u>Engineer Category Heading?</u>	14
New Engineer Officers	15
<u>Recent Retirements</u>	15



the country and this was potentially due to a lack of handwashing capabilities. With the funding that was made available and in a reasonable timeline, there was no way to bring water to every structure since they are fairly spreadout. Instead, they identified places to install or rehabilitate community water points. This brought water closer, making it significantly easier and safer for families. The IHS has, to date, internally deployed seven field teams that primarily included engineers, and a few environmental health officers, typically with five -member teams working hard to ensure great success. The IHS has requested support from the USPHS Commissioned Corps to support an additional two teams.

Engineers are always adept at different mission sets. As engineers, our systematic organization, linear approach, and problem solving are advantageous in response operations. We can be employed in operations, logistics, leadership, and, on a few occasions, even communications because we bring such a great skill set. We are not only able to solve the problem and determine the outcome, but we also define the critical path to success. Many of our engineers have been deployed with the Assistant Secretary for Preparedness and Response (ASPR) teams and various community support missions. Dr. Kevin Yeskey, former APSR Deputy Director, identified assignments such as Regional Emergency Coordinators as great opportunities for engineers to excel. This is represented in the outstanding work and careers of CAPTs Mick Cote (Ret) and Scott Lee (Ret), as well as CAPT Charles Weir, who is currently assigned as ASPR's Liaison to the Centers for Disease Control and Prevention (CDC) in preparedness and response.

As another example, engineers are also working in support of FEMA and the states on the wildfire response. CAPT Mat Martinson, who is stationed with the Environmental Protection Agency (EPA) in Region 10, has served as the lead of subject matter experts supporting FEMA and the state of Oregon on drinking water infrastructure issues. In September, he led a team that conducted preliminary damage assessments for public water systems. LT Adam Ramos, a Public Health Service engineer assigned to EPA Region 9, was on the assessment team. CAPT Martinson is now involved with leading efforts to evaluate the longer-term impacts of wildfire on community water systems in Oregon, particularly focused on the implications for the water treatment plants that depend on surface water. Another mission that CAPT Martinson is involved with is to repair some of the damage to the water infrastructure due to the wildfires. One of his primary areas of focus is assessing the damage to private wells and determining how to bring them back on-line. The mission is now being kicked off. To date, the missions have been carried out with EPA engineers, but there may be opportunities for Public Health Service engineers to participate.

Finally, the work our engineers are doing on a day-to-day basis, whether it's their work supporting Tribal Nations or at the Food and Drug Administration (FDA) with research and development, and now supporting Operation Warp

(Continued on page 3)



Speed. CAPT Steve Martin, who works for National Institute of Occupational Safety and Health (NIOSH), is working on improving disinfection systems, sanitation capabilities, and safety measures. Our daily missions with FDA, IHS, NPS, EPA, NIH, and CDC are important and supporting the response to national emergencies, so engineer support doesn't just come from short term deployments. Our daily missions are contributing equally.

Q: For you, as Chief Engineer, what has been the biggest challenge this year?

A: For me, the biggest challenge has been not being able to participate with our engineers and partners in person. Prior to the pandemic, I was trying to get out on a regular basis and hold town halls. This year, we missed the Commissioned Officers Association (COA) symposium and the Society of American Military Engineers (SAME) Joint Engineer Training Conference & Expo (JETC), our two largest, in-person networking and development events. In addition, SAME was celebrating its Centennial Celebration; so a huge event was planned, but it was shifted to a virtual event. We should all take great pride with the Surgeon General serving as the Closing Session Keynote – kicking off SAME's second century. It was still tough not to be with the other engineers. As Chief Engineer, that is one thing that keeps me going. One of the best parts of the job is meeting with our engineers and seeing the great impact of their work. This year has definitely been challenging in that respect. To some extent, I feel like I lost one of my years as Chief Engineer because of the restrictions on my ability to really connect and participate with engineers in a personal way.

Along with highlighting the Surgeon General's Keynote at SAME's Centennial Celebration - a first, and huge demonstration of the importance of engineering to health - I also want to highlight the Assistant Secretary for Health's participation in our Engineer Week Celebration hosted by the FDA, another first. Many thanks to ADM Giroir and VADM Adams for their leadership and support of our engineers.

Q: What has been most rewarding about this year?

A: Seeing our impact, although that's every year. In any year, seeing the remarkable - almost mind-boggling - capability and impact of our engineers is rewarding. This year, it has been a very rewarding experience to see the dedication of the engineers and, broadly, of all officers in the Public Health Service. When the Nation calls, we respond, we dig in, we find that resilience. We find that capability to push, based on our selflessness as officers and backed by the sacrifice of our families. I know a number of officers who have deployed multiple times and others who are putting in very long hours. While unfortunate, it is rewarding to see how dedicated and selfless our Service becomes when the Nation is in need. It is inside of us and it is why we wear the uniform.

Machinatores Vitae: Paratus, Volens, Peritus!



If you have any questions or comments related to the Engineering Category or EPAC activities, feel free to contact any of the following EPAC members.

EPAC	Point of Contact	Agency	e-mail
Chair	CDR Samantha Spindel	FDA	Samantha.Spindel@fda.hhs.gov
Vice Chair	CDR Deborah Cox	EPA	Cox.Deborah@epa.gov
Subcommittees			
Awards (Chair)	CDR John Kathol	IHS	John.Kathol@ihs.gov
Awards (Vice Chair)	CDR Matthew Mergenthaler	IHS	Matthew.Mergenthaler@ihs.gov
Career Development (Chair)	LCDR Omobogie Amadasu	IHS	Omobogie.Amadasu@ihs.gov
Career Development (Vice Chair)	CDR Eric Hanssen	NIH	Eric.Hanssen@nih.gov
Events (Chair)	LCDR Derrick Buck	IHS	<u>Derrick.Buck@ihs.gov</u>
Events (Vice Chair)	LCDR Michael Gifford	NPS	Michael Gifford@nps.gov
Information (Chair)	CAPT Josh Simms	FDA	Joshua.Simms@fda.hhs.gov
Information (Vice Chair)	LCDR Garrett Chun	NPS	<u>Garrett_Chun@nps.gov</u>
Public Health Engineering Practice (Chair)	CDR Leo Gumapas	NIH	Leoangelo.gumapas@nih.gov
Public Health Engineering Practice (Vice Chair)	CDR James Coburn	FDA	James.Coburn@fda.hhs.gov
Readiness (Chair)	CDR Frank Chua	IHS	Francis.Chua@ihs.gov
Readiness (Vice Chair)	CDR Sean Bush	IHS	Sean.Bush@ihs.gov
Recruitment and Retention (Chair)	LCDR Praveen KC	EPA	KC.Praveen@epa.gov
Recruitment and Retention (Vice Chair)	LCDR Fred Kelly	NIH	Fred.Kelly@nih.gov
Rules (Chair)	CDR Deborah Cox	EPA	Cox.Deborah@epa.gov
Rules (Vice Chair)	LCDR Matt Palo	CDC	mpalo@cdc.gov
Strategic Planning for Engineers (Chair)	CAPT David Harvey	IHS	David.Harvey@ihs.gov
Strategic Planning for Engineers (Vice Chair)	CDR Sam Russell	EPA	Russell.Sam@epa.gov
Ex Officio's			
Executive Secretary	LCDR Michael Simpson	FDA	Michael.Simpson@fda.hhs.gov
CCWIAB Liaison	CAPT Varsha Savalia	FDA	Varsha.Savalia@fda.hhs.gov
COA Liaison	CDR Nikhil Thakur	FDA	<u>Nikil.Thakur@fda.hhs.gov</u>
JOAG Liaison	LT Colin Tack	FDA	Colin.Tack@fda.hhs.gov
SAME Liaison	CDR Steve Sauer	IHS	Steve.Sauer@ihs.gov
EPAC Website			https://dcp.psc.gov/osg/engineer/



FALL 2020

2020 EPAC Chair

CDR Samantha Spindel, Ph.D., M.Eng.



It has truly been an honor to serve as your EPAC Chair for these past twelve months. This year, we focused on the following three objectives, and below are some brief highlights of our efforts in these areas since the last newsletter:

Engage Officers

• Example Actions Taken: RADM Dieser provided an overview of the status of our category and gave officers an opportunity to ask questions at town hall meetings on June 19th and October 8th.

Develop Leaders

• Example Actions Taken: Subcommittee leadership (e.g., Rules and Public Health Engineering Practice) gave opportunities for officers to present their projects and recommendations at EPAC meetings; 48 mentor/mentee pairs

actively participate in the EPAC mentoring program.

Partner with OSG-chartered groups

• Example Actions Taken: Worked collaboratively with other PACs to develop and put forward a memo for OSG's consideration regarding allowing potential USPHS applicants to begin their applications before officially receiving their qualifying degree.

The EPAC has remained quite active and productive during 2020 despite many participants deploying for 30 days at a time. Below are just some highlights of the many accomplishments of EPAC to date:

Awards – Completed review of nomination forms and rubrics for Engineer of the Year, Engineer Responder of the Year, and the RADM Michaels Award. Crafted proposals for updates to these documents to ensure that requirements and selection criteria are clearer.

Career Development – Developed a survey that will be released to the category, which is intended to identify suitable online engineering master's programs. Wrote an article on the late CAPT Rodriguez for becoming the first woman CAPT within the engineer category.



Events – Held a virtual category day highlighting the work of both junior and senior officers at EPA, FDA, IHS, and NPS. This event, which featured the ability to earn professional development hours, garnered the attendance of 83 officers. Supported the virtual Society of American Military Engineers (SAME) Joint Engineer Training Conference and Expo (JETC).

Information – Developed, published, and distributed Engineer Newsletters. Assisted numerous subcommittees with updating their websites to make them more user-friendly and to increase the visibility of work products.

Public Health and Engineering Practice – Completed white paper and presentation to the EPAC regarding access to engineering standards (<u>https://dcp.psc.gov/OSG/engineer/documents/PHEP-White-Paper---Improving-Access-to-Engineering-Standards---June-2020.pdf</u>). Created an online library of reference materials that aid in performing key engineering roles (<u>https://dcp.psc.gov/OSG/engineer/phep-access-to-reference-materials-workgroup.aspx</u>). This subcommittee is offering a service to review papers intended for peer review publication. Please contact the subcommittee leadership, CDR Leo Gumapas (Chair) or CDR James Coburn (Vice Chair) for more information.

Readiness – Collecting summaries of deployment and COVID-19 support activities, which will be highlighted in an upcoming newsletter. Developing a list of trainings on topics such as assessing health facilities, with the aim of developing an engineer field readiness training curriculum.

Recruitment and Retention – Provided information support to many prospective engineers. In the process of developing a recruitment presentation.

Rules – Reviewed and provided suggestions on subcommittee SOPs. Revised voting member selection process.

I look forward to seeing what more EPAC achieves over the next months and will work with CDR Deb Cox, the incoming EPAC Chair for 2021, to do our best to help champion these efforts. This year's set of EPAC leaders and volunteers continues to impress me with their enthusiasm, eagerness to not only come up with new ideas but also to work toward bringing these ideas to fruition, and their desire to make improvements for the betterment of all engineers in our category.

In the Service of Health,

CDR Samantha Spindel



How Engineers Can Gain Improved Access to Engineering Standards at Work

CAPT Alex Dailey, CDR Hugo Gonzalez, and LCDR Julia Kane

The PHEP Workgroup on Engineering Standards has written a white paper showing how agencies can provide their engineers improved access to engineering standards to help them do their jobs. For example, it is often necessary to read the full, up-to-date versions of standards that engineers reference in technical specifications. The white paper compares three companies that provide access to standards. Companies are compared based on user friendliness, types of standards offered, cost, and other factors. The white paper also includes appendices which list the standards offered by each company in a package that would be typical for an agency such as Indian Health Service. The paper shows significant cost savings occur when the subscription cost is shared among the largest number of users possible, even if those users are spread out in many office locations across the country.

A link to the white paper and WebEx is available on the PHEP webpage on the EPAC website (see: <u>https://dcp.psc.gov/OSG/engineer/phep-access-to-reference-materials-workgroup.aspx</u>) and shows how agencies could provide this kind of access to their engineers nationwide for as little as \$58-\$123 per engineer per year. Engineers who find they have this need are invited to share the analysis with their agency management. Supervisors who want to provide this resource to their engineers may consider that this access is considerably less than the cost of a typical training course and gives engineers easy access to standards that they commonly need to reference. The paper also highlights some of the additional tools that are included in the services provided by each of the companies, such as the ability to send a standard to a colleague on the subscription, to discuss aspects of the standards in a type of chat format within the program, and the ability to bookmark and highlight a standard for personal reference.

EPAC Hosts 1st Virtual Engineer Category Day

LCDR Fred Kelly

On June 19, 2020, the Engineer Professional Advisory Committee hosted the first ever Virtual Engineer Category Day. Under the leadership of the Events Subcommittee, the team was able to solicit a full day of insightful presentations about initiatives and projects that our engineers have been involved with over the last year. Presentations included:

- How Engineers Impact Public Health in the World by Providing at Least One Essential Public Health Service
- Laboratory Exhaust Ventilation Systems
- Alphabet Soup What Certifications or Credentials do USPHS Engineers Need?
- Applying Engineering to Data Management in the Democratic Republic of the Congo
- How Sustainability Promotes Engineering and Public Health

Our very own Chief Professional Officer, RADM Edward Dieser, also led a Chief Engineer Townhall discussion about the status and strategic direction of the Engineer Category.

Presenters and attendees received four professional development hours along with a Certificate of Achievement signed by the Chief Engineer, RADM Dieser. We would like to thank all of the presenters as well as everyone who assisted in the successful execution of the event!

USPHS Engineers Lead the Development of a Graphical Information System at the Indian Health Service

Engineers, field construction technicians, and surveyors working within the Indian Health Service (IHS) are helping to integrate a Graphical Information System (GIS) into the Sanitation Facilities Construction (SFC) Program to improve program delivery efficiency. The SFC Program provides technical and financial assistance for the cooperative development and construction of water, wastewater and solid waste systems, and related support facilities. The SFC Program currently maintains information in various forms (e.g. paper and AutoCAD files) on over 280 American Indian tribally owned water and wastewater systems. This information is critical to addressing the sanitation needs of American Indian tribes and is used to report on needed facilities along with the planning, design, and operation and maintenance assistance for new and improved facilities.

(Continued on page 9)



MACHINATORES VITAE

FALL 2020

In 2018, it was recognized by RADM Mark Calkins, Director of the SFC Program, and the Area SFC Program Directors, that changes in the way this information is being stored and accessed through the use of GIS would improve the program delivery. As a result, today the program has a nationwide enterprise GIS mapping portal which allows staff to collect, visualize, display, share, and analyze geospatial data. In 2019, the SFC Program estab-



GIS Portal Workflow and Field Apps Training February 11-13, 2020 in Albuquerque, NM

lished a National GIS Champions Workgroup co-led by CAPTs Ramsey Hawasly and Shari Windt with representatives from Headquarters and 12 IHS Areas. The workgroup, with contractor assistance, is helping to guide the implementation of GIS into the SFC Program through the development of program guidelines that include data, workflow, and governance standards. The GIS Workgroup meets monthly to discuss technical and programmatic issues as well as training needs and support.

Organization	Name	
Headquarters	CAPT Ramsey Hawasly CAPT Shari Windt CAPT David Harvey CDR Ryan Clapp	
Alaska Area	CAPT Leigh Hubbard	
Albuquerque Area	Caitlin Caldwell	
Albuqueique Alea	CDR Gretchen Tsosie	
Bemidji Area	CDR Steve Scherling	
Rillings Aroa	LCDR Jason Schneider	
Dinings Area	LT James Courtney	
California Aroa	CAPT Jonathan Rash	
	LCDR Josh Sims	
Great Plains Area	Kevin Kermes	
Nashville Area	CDR Tanya Davis	
Navajo Area	CAPT David McDonnell (Ret)	
Oklahoma Area	CDR Richard Fink	
Phoenix Area	CDR James Carter	
Portland Area	Harrison Andina	
Tucson Area	CDR Darren Ausdemore	

SFC Program National GIS Champions Workgroup



USPHS Engineer Experiences with Collaborative Problem-Solving and Community Engagement in Addressing Water Quality Challenges

CAPT Alex Dailey, LCDR Julia Kane, LCDR Peter Littlehat, LCDR James Earl, and LT Melissa de Vera

Across the United States, many communities grapple with a lack of access to safe drinking water. In recent years, elevated lead levels in the drinking water of major cities such as Flint, Michigan and Pittsburgh, Pennsylvania became national news stories. In remote areas of the Navajo Reservation, in isolated Alaska Native villages, and across rural America, many homes have no piped water at all. Finally, natural disasters such as flooding and hurricanes increasingly threaten vulnerable drinking water infrastructure. These threats to water security are complex problems, and many communities have very limited resources to address them. In addition to the technical issues, drinking water problems have uniquely local requirements and stakeholders that necessitate an in-depth understanding of the community. This requires long-term, on-the-ground support and engagement.

In these challenging environments, a collaborative approach to problem solving is necessary, where technical experts with local experience can support community leaders and the local drinking water provider. One model of success can be found where the civilian and Commissioned Corps engineers of the U.S. Public Health Service (USPHS) are engaging with communities to address their drinking water concerns. By applying a collaborative and disciplined problem-solving approach and by employing an organizational structure that supports their frontline delivery of services, USPHS engineers are improving public health and providing models of service that can benefit the wider population.

In their assigned agencies, USPHS engineers are often stationed in or near the communities they serve. In the Indian Health Service (IHS), officers support American Indian and Alaska Native communities with the provision of safe drinking water and waste disposal facilities. This support is typically provided by remote IHS field offices with limited in-house support staff. In their support roles, IHS engineers do not have authority to make decisions for a community, so they must rely on building trust in order to influence outcomes. Additionally, because drinking water concerns often involve a diverse set of stakeholders, IHS engineers must often build partnerships and coalitions to solve problems. All these factors point to the need for a collaborative approach with significant and meaningful community engagement.

(Continued on page 11)



Case Study

An example from the Navajo Reservation demonstrates the value of persistence and of engaging a broad spectrum of stakeholders. In 2014, USPHS engineers assigned to the IHS identified a number of homes in a Navajo community with the contaminant uranium in their drinking water in excess of the National Primary Drinking Water Regulations. The first attempt to address the issue consisted of an initial assessment, where a very limited set of stakeholders were engaged within the IHS to develop a solution. The outcome of this effort was a project that had to be shelved because it was economically infeasible. USPHS engineers reassessed their approach and made a second attempt the following year. A wider group of stakeholders was engaged, including the Navajo Nation and the U.S. Environmental Protection Agency (EPA). The team was successful in identifying a potentially feasible solution, but it required collaboration amongst multiple funding parties. Unfortunately, the communication channels were not robust enough (requests were sent via letter only), and the project stalled again in 2015 due to lack of coordination and funding commitments. Following this, the team expanded their efforts further and engaged with the local community at the ground level during a series of public meetings to raise awareness, identify the stakeholders that could influence outcomes, and develop a robust communication plan.

As a result of this outreach, additional stakeholder groups from within the local community were identified and included in the planning process. A total of nine key stakeholders were identified as critical to the project's success. These included ed elected tribal leaders, EPA staff, and individual homeowners. The public meetings proved successful at building trust and uncovering previously unknown obstacles, such as understanding the preferred methods of communication of tribal leaders.

leaders and homeowners (physical meetings were preferred as opposed to emails or phone calls); understanding the influences of each stakeholder, including specific homeowners; and creating short-term goals with realistic outcomes and assigned responsibilities. The activity that most influenced the successful award of funding was to keep the Navajo Tribal



A Navajo community stakeholder meeting attended by Indian Health Service engineers, Navajo officials, contractors, and community members (Photo credit: CDR Kelly Mortensen)

Councilmen apprised of the progress so that he could effectively advocate for the project. Eventually, he was successful in obtaining a funding contribution from the Navajo Nation. With those funds secured, IHS and EPA were able to commit their portions of the total cost. With this improved engagement and communication strategy, the project solution was well vetted and accepted by the community. The end result was a technically and financially feasible project that is now in the pre-construction phase and is expected to begin construction soon.

(Continued on page 12)



The experience of USPHS engineers and wider research both support the structured use of collaborative engagement strategies. The first step in designing an effective engagement approach is to identify the outcomes desired. The Cooperative Research Centre for Water Sensitive Cities identifies three outcomebased categories of community engagement (Dean, Fielding, Ross & Newton, 2016):

- 1) provide input to the community
- 2) seek input from the community
- 3) build an active and connected community

Providing input to a community could be to simply increase knowledge within a community, or it could be more involved and intended to change community behavior or habits. Seeking input from a community can be used to gauge community opinion, or input can be used for planning consultation and decision-making. Finally, the most involved community engagement is that which empowers communities to be active and engaged or to invoke stewardship.

Once the desired approach has been identified, the types of engagement activities can be planned. The Organization for Economic Cooperation and Development (OECD) Survey on Stakeholder Engagement for Effective Water Governance inventoried 24 mechanisms for stakeholder engagement and assessed their strengths and weaknesses (OECD, 2015). Both formal and informal activities should be considered when planning for effective community engagement, but activities of particular applicability to USPHS engineers include stakeholder mapping and overcoming obstacles to stakeholder engagement. USPHS engineers have successfully employed these outcomebased engagement strategies in deployment environments, including the federal response to Hurricanes Irma and Maria in 2017. Deployment environments, where established connections between USPHS engineers and the community are not available, require responders to quickly integrate with the community and partner with



CDR Leo Gumapas, and CDR Andrew Yang assessing water loss from a cooling tower at Bayamon Hospital, Puerto Rico (Photo credit: CDR Michael Roberts)

other supporting agencies to be effective. USPHS engineers are uniquely suited to these missions due to their skill sets from working directly with communities,

(Continued on page 13)



often in austere environments with limited resources.

USPHS engineers also plan effective engagement approaches to support drinking water and process water infrastructure for critical institutional facilities. At the National Institutes of Health campus in Bethesda, MD, a team of USPHS engineers provide operational support for existing infrastructure systems as well as design and construction management for new systems. In these roles, USPHS engineers must balance stringent requirements for laboratory processes and atrisk patients with the risks involved in operating and maintaining treatment systems and distribution piping. This requires a thorough understanding of stakeholder needs, which are identified early in the planning process. This helps USPHS engineers to identify engineering solutions that are compatible with each stakeholder's needs and the end user's ability to operate and maintain the system. Engineers must be able to successfully facilitate the selection of a design approach that balances these differing interests.

Because of their field-oriented organizational structure, where individual engineers are positioned to work with given communities on a day-to-day basis, USPHS engineers are able to develop trust and build the necessary relationships to solve complex problems. The experience they develop with community engagement also positions them well for deployment settings, where managing stakeholder interests effectively is sometimes more critical than technical expertise.

References

Note on references: in addition to the sources below, in 2019 the authors interviewed a variety of PHS engineers and other PHS officers throughout the year. These interviews formed the foundation on which this paper is based.

Dean, Fielding, Ross, and Newton (2016). Community Engagement in the Water Sector: An outcome-focused review of different engagement approaches. Melbourne, Australia: Cooperative Research Centre for Water Sensitive Cities. Re-trieved from https://watersensitivecities.org.au

OECD (2015). *Stakeholder Engagement for Inclusive Water Governance*. OECD Studies on Water, OECD Publishing, Paris. Retrieved from <u>http://</u><u>dx.doi.org/10.1787/9789264231122-en.</u>

Looking into the Future, in what Direction is the Engineer Category Heading?

A summary of RADM Dieser's responses from an October 2020 Interview

LT Michelle Roy

Thank you for this timely and challenging question. We know our numbers are going down, however, I believe that we will see a big push in recruiting. We effectively lost two full years of recruiting and applications during the pause. Even though the application process opened again on January 1st, we have not seen a large influx of candidates. The PHS was working through a branding process and we held off on new recruiting efforts until the new materials were available. Many of these are now prepared and I encourage you to look for them on the new USPHS website, and other materials will soon be ready for distribution.

I am optimistic that 2021 will be a good recruiting year and that in the next few years we will have a bigger push in recruiting. I know that EPAC is ready to support, and I hope to see a lot of great candidates. There is certainly no lack of work; IHS has great need, as well as NPS and FDA, and EPA and CDC always need engineers. Without a doubt there is a need and I continue to press the case with OSG about our level of shortage, especially with more and more retirements. The pandemic has made it seem to many that there is an increased focus on clinical shortages. This is completely understandable, but it doesn't reduce the need for engineers. Engineering may not be the current spotlight, though we know there is a substantial need for engineers and the impact we provide. Based on these facts, I remain optimistic that our numbers will grow with full support from leadership.

I opened with this being a challenging question since we are immediately ahead of the presidential election and regardless of what candidate wins, even with a returning Administration, there is often a lot of turnover. RADM Trent-Adams, who has been a very significant leader in the Commission Corps for many years as the Principal Deputy to the ASH, recently retired. We may see other officers retiring or moving on to other endeavors with an Administration change and we may see a dynamic shift in our priorities. I am confident that RADM Schwartz and RADM Orsega will provide the PHS the critical stability and continuity at OSG. I fully acknowledge that there are some very significant unknowns immediately ahead of us in 2021.

The last piece of this is the Ready Reserve which is an enormous undertaking. Accession will begin in early 2021. The relationship between the active component and reserve component is likely to evolve for several years. As such, it is difficult to predict the full impact of the Ready Reserve on the USPHS; though I trust our need and impact are sure to expand in the future.



New Engineer Officers

The EPAC would like to acknowledge the following engineers who have recently become Commissioned Officers. The EPAC welcomes each of you and hopes you will enjoy a long and prosperous career in the PHS.

Rank	Name	OPDIV	City	State
LT	Geng (Michael) Tian	FDA	Silver Spring	MD

Fair Winds and Following Seas

The EPAC would also like to recognize the engineer officers who have recently retired from Commissioned Corps service. The EPAC sincerely appreciates your leadership and dedication to the mission of PHS engineers.

Rank	Name	OPDIV
CAPT	Jamie Natour	NIH
CAPT	Scott Helgeson	OS
CAPT	Lee Jackson	IHS
CAPT	Sharon White	EPA
CAPT	Donald Antrobus	IHS
CAPT	Scott Lee	OS
CDR	Leonard Hotham	EPA
CDR	Paul Frazier	IHS
CDR	Michael Roberts	Interior



Dear Readers,

Machinatores Vitae (Engineering for Life) is a publication of the EPAC, but we need help in bringing you the information and stories that you want to read. Please consider submitting an article for an upcoming issue or let us know when you or a colleague have reached a milestone, been recognized for an accomplishment, or have an experience to share. If you are an accomplished writer, send something along that is already polished. If you don't feel like a Hemingway or Dickinson, just send enough detail so the writing team can take hold of it and build the story for you.

The writing staff can only see a bit of the big world that is public health engineering. There are numerous accomplishments even within our readership that remain unknown except in the relatively small circles around you. If you have not presented at a national meeting, the likelihood is that no one outside of your agency, or possibly even Office, ever heard about the project that you nearly exhausted yourself completing. Here is your chance to shine!

All ideas are welcomed. Remember that we do not have to solely focus on work going on within the PHS. Let us know if you hear of new technologies or applications, or just find an interesting story from the outside world. The rule of thumb is that if you as an engineer are interested in it, then others will be too!

Send your thoughts, suggestions, or a brief synopsis of a proposed article to the newsletter coordinator, CDR Jason Petersen at <u>Jason.Petersen@ihs.gov</u>.

Thank you,

The Newsletter Team EPAC Information Subcommittee

Machinatores Vitae is published twice annually and posted on the USPHS Engineer Professional Advisory Committee website. The deadline for submitting articles for the **Spring 2021** edition is **February 28, 2021.**